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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,946	02/06/2004	Yiu-Ming Leung	MS307156.01/40062.0235US0	7981

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EXAMINER	
FLEURANTIN, JEAN B	

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/773,946	LEUNG, YIU-MING	
	Examiner	Art Unit	
	JEAN B. FLEURANTIN	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/05/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the application filed on 02/06/04.

a. Claims 1-17 are presenting for examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 02/06/04. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. The Drawings submitted on 2/06/04 are acknowledged.

Abstract

4. The abstract of the disclosure is objected to because the Title of the invention should not be into the same page as the Abstract (Page 22). Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

b. As per claims 1, 6 and 12

The claim appears to have no claimed result under the condition where the act of traversing a path does find a node in the branch for each parent/child relationship.

c. As per claims 4, 8 and 14

The claim appears to have no claimed result under the condition where the properties of the current end node in the path does not match the properties of the end node in the path being traversed.

d. As per claims 2, 5 and 15

Claim 2, recites the limitation "resetting a pointer" in claim 2, line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "resetting a pointer" in claim 5, line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "resetting a pointer" in claim 15, line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over "XML Linking" issued to Steven J. DeRose – year 2000, pages 1-12 ("DeRose") in view of "Efficient Supporting XML Query and Keyword Search in Relational Database Systems" submitted by the applicant, 8/11-13/02, pages 1-12, issued to Wan et al., (Wan").

As per claim 1, DeRose discloses "in a computer system, a method for generating an XML payload from an XML list" (i.e., XML permits creating (generating) new element types and trees of them, modeling information structures as documents (lists); see page 1, paragraph, information modeling, lines 1-6), the method comprising:

"grouping paths indicative of parent/child relationships of data for each record in the XML list" (i.e., XML document structure necessitating, which associating behavior (relationship) with sets of nodes (parent/child); see page 2, paragraphs 1 and 2 and figure/page 2) "according to the path length" (In light the specification at page 2, lines 5-14, the purposed of path length is for repeating pointer setting operation starting with the end node. The method for locating set of nodes or range, where a node set is the return for Xpath is disclosed by DeRose, page 7, paragraph 6);

"traversing each path for a record in an XML payload node tree" (i.e., initiating link traversal; see page 7, paragraph 3); and

"creating nodes to extend a branch from a current end node" (i.e., Xpath operating to create node sets; see page 5, paragraph Xpath technical overview, line 8) "to a new end node in the XML payload node tree associated with a record in the node tree" (i.e., relationships in ordered tree, child/parent; see page 5, paragraph Xpath technical overview, lines 9-12) "if the act of traversing a path does not find a

node in the branch for each parent/child relationship in the path" see page 5, paragraph Xpath technical overview, lines 13-14). DeRose fails to explicitly disclose independent of a schema associated with the XML list. However, Wan discloses independent of a schema associated with the XML list (see page 1, abstract and page 6, section 3.3). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of DeRose by independent of a schema associated with the XML list as disclosed by Wan (see Wan, Abstract, lines 13-15). Such a modification would allow the method of DeRose to provide investigating the feasibility of optimization for using XML Schema and statistics information, which are used for estimating the costs and sizes of intermediate results (see Wan, page 12, first paragraph), thereby improving the accuracy and the reliability of the schemaless XML payload generation.

As per claim 2, in addition to claim 1, DeRose further discloses "resetting a pointer from pointing to the current end node to pointing to the new node whereby the new end node becomes the current end node" (i.e., XPointer locating any node; see page 3, paragraph 7).

As per claim 3, in addition to claim 1, DeRose further discloses "testing for more paths in the records" (In light the specification at page 12, lines 6-8, the purposed of testing is for locating more Xpath. The method for locating set of nodes, where a node set is the return for Xpath is disclosed by DeRose, page 7, paragraph 6); and

"and if there are more paths, repeating the act of traversing and the act of creating for the next path record" (i.e., Xpath operating and creating node sets; see paragraph Xpath technical overview, line 8).

As per claim 6, DeRose discloses "an XML payload generating system in a computing system" (i.e., XML permits creating (generating) new element types and trees of them, modeling information structures as documents (lists); see page 1, paragraph, information modeling, lines 1-6), the XML payload generating system comprising:

"load module for collecting all the parent/child paths in the XML list" (i.e., XML document structure necessitating, which associating behavior with sets of nodes (parent/child); see page 2, paragraphs 1 and 2 and figure/page 2);

"a node tree create module for creating an XML payload node tree from the XML list" (i.e., Xpath operating, creating node sets; see page 5, paragraph Xpath technical overview, line 8) "based on the parent/child paths in the XML list" (In light the specification at page 2, lines 5-14, the purposed of path length is for repeating pointer setting operation starting with the end node. The method for locating set of nodes or range, where a node set is the return for Xpath is disclosed by DeRose, page 7, paragraph 6);

"said node tree create module using a parent/child path as a guide" (i.e., Xpath operating over context creating node sets (parent/child); see page 5, paragraph Xpath technical overview, line 8) and "traversing a path in an XML payload node tree being created" (i.e., initiating link traversal; see page 7, paragraph 3); and

"adding a node in the node tree for each parent/child relationship in the path that does not have a node in the node tree" (see page 5, paragraph Xpath technical overview, lines 13-14).

DeRose fails to explicitly disclose generating a schemaless XML payload from an XML list. However, Meng discloses generating a schemaless XML payload from an XML list (see page 1, abstract and page 6, section 3.3). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of DeRose by generating a schemaless XML payload from an XML list as disclosed by Wan (see Wan, Abstract, lines 13-15). Such a modification would allow the method of DeRose to provide investigating the feasibility of optimization for using XML Schema and statistics information, which are used for estimating the costs and sizes of intermediate results (see Wan, page 12, first paragraph), thereby improving the accuracy and the reliability of the schemaless XML payload generation.

As per claim 7, in addition to claim 6, DeRose further discloses "a build module for building an XML payload from the XML payload node tree" (i.e., Xpath operating, creating node sets; see page 5, paragraph Xpath technical overview, line 8); and

"an export module for exporting the XML payload to a software application" (i.e., software systems supporting links; see page 4, paragraph 4).

As per claim 12, in addition to claim 1, DeRose further discloses "traversing parent/child relationship of the current path in the record" (i.e., initiating link traversal; see page 7, paragraph 3); and

"creating nodes in a node tree representing of the parent/child relationship" (i.e., Xpath operating to create node sets (parent/child); see page 5, paragraph Xpath technical overview, line 8) "if nodes for parent child relationships in the current shortest path are missing" see page 5, paragraph Xpath technical overview, lines 13-14); and "repeating the above acts until all paths for the record have associated nodes in the branch of the node tree for the record" (In light the specification at page 12, lines 6-8, the purposed of repeating is for locating more Xpath. The method for locating set of nodes, where a node set is the return for Xpath is disclosed by DeRose, page 7, paragraph 6).

DeRose fails to explicitly disclose multi-dimensional data independent schema of the data. However, Wan discloses multi-dimensional data independent schema of the data (see Wan page 1, abstract and page 6, section 3.3). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of DeRose by multi-dimensional data independent schema of the data as disclosed by (see Wan, Abstract, lines 13-15). Such a modification would allow the method of DeRose to provide investigating the feasibility of optimization for using XML Schema and statistics information, which are used for estimating the costs and sizes of intermediate results (see Wan, page 12, first paragraph), thereby improving the accuracy and the reliability of the schemaless XML payload generation.

As per claim 13, in addition to claim 12, DeRose further discloses (In light the specification at page 12, lines 6-8, the purposed of testing is for locating more Xpath. The method for locating set of nodes, where a node set is the return for Xpath is disclosed by DeRose, page 7, paragraph 6).

Allowable Subject Matter

7. Claims 4-5, 8-11 and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Examiner's Remarks

The Examiner suggests the applicant(s) to amend the claims to overcome the rejections of 35 U.S.C. 112, second paragraph as indicated in section 5.

Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chau et al., U.S. Patent No. 6,636,845 relates to XML.

CONTACT INFORMATION

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is 571 – 272-4035. The examiner can normally be reached on 7:05 to 4:35.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571 – 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jean Bolte Fleurantin

Patent Examiner

Technology Center 2100

July 6, 2006